# **ELECTRICAL CRITERIA**

# **TECHNICAL INSTRUCTIONS**

TI 800-01	Design Criteria	Jul 98
TI 800-03	Technical Requirements for Design-Build	Jul 98
TI 800-04	Installation Support	Aug 98
TI 801-01	Barracks Upgrade Program	Aug 98
TI 801-02	Army Family Housing	Aug 98
TI 802-01	Code 3 Design with Parametric Estimating	May 98
TI 811-12	Utility Monitoring and Control Systems	Aug 98
TI 811-16	Lighting Design	Aug 98
	TECHNICAL MANUALS	
TM 5-811-1	Electric Power Supply and Distribution	Feb 95
TM 5-811-2	Electrical Design: Interior Electrical System	Sept 83
TM 5-811-3	Electrical Design: Lightning and Static Electrical Protection	Mar 85
TM 5-811-5	Army Aviation Lighting	Dec 91
TM 5-811-6	Electric Power Plant Design	Jan 84
TM 5-811-7	Electrical Design: Cathodic Protection	May 85
TM 5-811-14	Coordinated Power Systems Protection	May 85

TM 5-815-2 Energy Monitoring and Control Systems Jan 91			
TM 5-853-4 Security Engineering Intrusion Detection System May 94			
	ENGINEERING TECHNICAL LETTERS		
ETL 1110-3-403	Electrical Power Systems for Non-Linear Loads	Jun 89	
ETL 1110-3-412	Transformer Application Guidance	Oct 89	
ETL 1110-3-432	Exit Signs	Nov 91	
ETL 1110-3-441	Electronic Ballasts for Fluorescent Lighting Fixtures	Aug 92	
ETL 1110-3-474	Cathodic Protection	Jul 95	
ETL 1110-3-502	Telephone and Network Distribution System Design and Implementation Guide	Mar 00	
ETL 1110-9-10(FR)	Cathodic Protection Using Ceramic Anodes	Jan 91	
STANDARD DETAILS			
SD 40-06-04	Lighting Fixtures	Oct 97	
SD 40-06-05	Aviation Lighting	Jan 91	
MILITARY HANDBOOKS			
MIL HDBK 1008C	Fire Protection for Facilities Engineering, Construction, and Design	Jun 97	
MIL HDBK 1022	Petroleum Fuel Facilities	Jun 97	

# **MILITARY STANDARDS**

MIL STD 188/125	High Altitude Electromagnetic Pulse (HEMP) Protection for Ground Base Facilities Performing Critical, Time-Urgent Missions, Vol I, Fixed Facilities	Jun 90
MIL STD 202	Test Methods for Electronic and Electrical Component Parts	
MIL STD 220	Method of Insertion Loss Measurement	Dec 59
MIL STD 2202	EMCS Factory Test Procedures	Nov 86
MIL STD 2203	EMCS Performance Verification & Endurance Tset Procedures	Nov 86
	ENGINEERING PAMPHLETS	
EP 1110-3-2	Electromagnetic Pulse (EMP) and TEMPEST Protection for Facilities	Dec 90
EP 1110-3-7	Local Area Networks (LAN)	Dec 94

# **CORPS OF ENGINEERS GUIDE SPECIFICATIONS (CEGS)**

#### **Division 13 - Special Construction**

CEGS 13090	X-Ray Shielding
CEGS 13095	Electromagnetic (EM) Shielding
CEGS 13100	Lightning Protection System
CEGS 13110	Cathodic Protection System (Sacrificial Anode)
CEGS 13111	Cathodic Protection System (Steel Water Tanks)

CEGS 13112	Cathodic Protection System (Impressed Current)
CEGS 13720	Electronic Security System
CEGS 13721	Small Intrusion Detection System
CEGS 13801	Utility Monitoring and Control System (UMCS)
CEGS 13814	Building Preparation for Energy Monitoring and Control System (EMCS)
CEGS 13820	Multi-Building Expansion of Energy Monitoring and Control System (EMCS)
CEGS 13850	Fire Detection and Alarm System, Direct Current Loop
CEGS 13851	Fire Detection and Alarm System, Addressable
CEGS 13852	Fire Alarm Reporting System, Radio Type
CEGS 13853	Central Fire Alarm Sytem, Digital Alarm Communicator Type

# **Division 14 - Conveying Systems**

CEGS 14210	Elevators, Electric
CEGS 14210	Elevators, Electric, for Civil Works
CEGS 14630	Overhead Electric Cranes

# **Division 16 - Electrical**

CEGS 16070	Seismic Protection for Electrical Equipment
CEGS 16113	Underfloor Duct System

CEGS 16115	Underfloor Raceway System (Cellular Steel Floor)
CEGS 16120	Insulated Wire and Cable
CEGS 16221	Electric Motors, 3-phase Vertical Induction Type
CEGS 16222	Electric Motors, 3-phase Vertical Synchronous Type
CEGS 16263	Diesel-Generator Set Stationary 100-2500 KW, with Auxiliaries
CEGS 16264	Diesel-Generator Set Stationary 15-300 KW, with Auxiliaries
CEGS 16265	Uninterruptible Power Supply (UPS) System Above 15 KVA Capacity
CEGS 16311	Main Electric Supply Station and Substation
CEGS 16370	Electrical Distribution System, Aerial
CEGS 16375	Electrical Distribution System, Underground
CEGS 16403	Motor Control Centers, Switchboards and Panelboards
CEGS 16404	480-volt Station Service Switchgear and Transformers
CEGS 16410	Automatic Transfer Switch and By-Pass/Isolation Switch
CEGS 16415	Electrical Work, Interior
CEGS 16475	Coordinated Power System Protection
CEGS 16525	Helipad Lighting and Visual Navigation Aids

CEGS 16528	Exterior Lighting including Security and CCTV Applications
CEGS 16665	Static Electricity Protection System
CEGS 16710	Premises Distribution System
CEGS 16711	Telephone System, Outside Plant
CEGS 16721	Intercommunication System
CEGS 16750	Nurse Call System
CEGS 16751	Closed Circuit Television Systems
CEGS 16755	Radio Paging System
CEGS 16768	Fiber Optic Data Transmission System
CEGS 16770	Radio and Public Address Systems
CEGS 16781	Master Antenna Television System
CEGS 16790	Stand-Alone One-Way Radio Control System
CEGS 16792	Wire Line Data Transmission System
CEGS 16794	Coaxial Cable Data Transmission Media
CEGS 16797	One-Way FM Radio Control/Utility Monitoring & Control System (UMCS)
CEGS 16798	Two-way Radio Data Transmission System
CEGS 16905	Electrical Equipment for Gate Hoist

# **MISCELLANEOUS**

I3A	Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide	Mar 99
	Design Criteria for Construction in the U.S. Army Kwajalein Atoll/Kwajalein Missile Range (USAKA/KMR)	Oct 97